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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,039	07/11/2000	Gregg B. Morin	019/251C	2632

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EXAMINER	
NOBLE, MARCIA STEPHENS	
ART UNIT	PAPER NUMBER
1632	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/615,039	MORIN ET AL.	
	Examiner	Art Unit	
	Marcia S. Noble	1632	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-33,35-38,40,42-44 and 47-51* is/are pending in the application.

4a) Of the above claim(s) *42-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-33,35-38,40 and 47-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/25/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Preliminary Matters

1. This case has been transferred to a new examiner. The new examiner is Marcia Noble.

Status of Claims

2. Claims 1-26, 34, 39, 41, 45, and 46 are cancelled, claims 27, 33, 35-38, and 44 are amended, claims 42-44 are withdrawn, and claims 47-51 are newly added, by amendment, filed 8/15/2006.

Claims 27-33, 35-38, 40, and 47-51 are under consideration.

CFR 1.132 Declaration/Affidavit

3. The Declaration Calvin B. Harley under 37 CFR 1.132 filed 9/25/2006 has been received and will be discussed in detail in the rejections below.

Information Disclosure Statement

4. The information disclosure statement (IDS) was filed on 9/25/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

5. Claim 37, objected to as being drawn to a non-elected invention, has been amended and the objection is withdrawn. Claims 37 originally encompassed SEQ ID NO: 2, which was not the elected invention. SEQ ID NO:2 was removed from the claims by amendment and the claim only encompasses elected subject matter. Therefore, the objection is withdrawn.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 27-38, 40 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 12-16 and 18-20 of U.S. Patent No. 6,777,203.

Also, claims 27-38, 40 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, 11, 14-23, 26-34 of U.S. Patent No. 6,610,839.

Applicant traversed these rejections of the grounds that the claims of '203 and '839 do not specifically encompass an hTERT promoter to a gene that controls replication or assembly of a viral vector. These arguments are not found persuasive because the breadth encompassed by the promoter virus and the breadth of a gene that controls replication or assembly of a viral vector. The claims and specification encompass a viral promoter with some level of sequence identity to the hTERT promoter that is linked to a genetic element in cancer cells wherein the expression of the virus results in toxicity and cell lysis. The breadth encompasses virus comprising any promoter that can be expressed in TERT expressing cancer cells, therefore the disclose of an isolated nucleic acid comprising the TERT promoter in an adenoviral vector that encodes thymidine kinase rendering the cells more susceptible to ganciclovir and kills the cancer cells as disclosed by the patents encompass the limitations of the '203 and '839.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

New Matter

7. Claims 27-33, 35-38, 40, 47, and 48 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. 37 CFR 1.118 (a) states that "No amendment shall introduce new matter into the disclosure of an application after the filing date of the application".

Amended claim 27 recites, "wherein the promoter polypeptide hybridizes under stringent conditions to a DNA consisting of 2482 consecutive nucleotides upstream of the transcription initiation site (position 13545) of SEQ ID NO:1." New claims 47 recites, "wherein the promoter polypeptide hybridizes under stringent conditions to a DNA consisting of the sequence from position –239 to position +1 relative to the translation initiation site (position 13545) of SEQ ID NOS:1." The specification does not provide literal support for these recitations. The specification does disclose an hTERT promoter sequences of SEQ ID NO:1 and disclose its location within said sequence. This does provide figurative support for the instant recitation. However, the specification does not disclose promoter polypeptide that specifically hybridizes to 2482 consecutive nucleotides upstream of the transcription initiation site (position 13545) of SEQ ID NO:1 or to the sequence from position –239 to position +1 relative to the translation initiation site (position 13545) of SEQ ID NOS:1 as claimed.

To the extent that the claimed compositions and/or methods are not described in the instant disclosure, claims 27-48 are also rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in

such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, since a disclosure cannot teach one to make or use something that has not been described.

These recitations also introduce new enablement concerns in their recitation of "the promoter polypeptide hybridizes under stringent conditions"... to specifies sequences of SEQ ID NO:1. However, the state of the art suggests that sequences identified by their hybridization properties are unpredictable in their identity in sequence to the original sequence to which it hybridized. Kennell teaches that 25 to 50% nucleic acid identity is all that is necessary for hybridization of a sequence under any conditions and that obtaining non-specific hybridization products are highly common in the art (par bridging p. 260 and 261 and par 1 of p. 261). The specification provides general guidelines and conditions for obtaining hybridization products. However, these condition are exemplary and not limiting. Furthermore, these general guidelines and conditions provided by the specification do not provide any guidance to overcome the unpredictabilities described in the art. Therefore, an artisan would not know if a sequence that hybridized to the specified nucleotides of SEQ ID NO:1 would be a true complementary sequence capable of driving transcription or a non-specific hybridization product. Furthermore, for an artisan to use or make the claimed nucleic acid capable of hybridizing to the specified nucleotides of SEQ ID NO:1, they would first have to sequence the product to determine if it was a true complement and then also test the functionality of the nucleotide for its promoter activity. This level of experimentation would be considered undue.

MPEP 2163.06 notes "If new matter is added to the claims, the examiner should reject the claims under 35 U.S.C. 112, first paragraph - written description requirement. In re Rasmussen, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981)." MPEP 2163.02 teaches that "Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application. MPEP 2163.06 further notes "When an amendment is filed in reply to an objection or rejection based on 35 U.S.C. 112, first paragraph, a study of the entire application is often necessary to determine whether or not "new matter" is involved. Applicant should therefore specifically point out the support for any amendments made to the disclosure."

Claims 28-33, 35-38, 40 depend from claims 27 which has been deemed as new matter and to contain embodiments that are not enabled. Therefore, dependent claims 28-33, 35-38, 40 are rendered as having new matter and to contain embodiments that are not enabled.

Claim 48 depends from claims 47 which has been deemed as new matter and to contain embodiments that are not enabled. Therefore, dependent 48 is rendered as having new matter and to contain embodiments that are not enabled.

Scope of Enablement

8. Claims 27 and 40 stand rejected and claims 28-33, 35, 37, 47, and 48 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for:

A recombinant virus having a genome in which a promoter polynucleotide is operably linked to a genetic element essential for replication or assembly of the virus, wherein the promoter polynucleotide consists of no more than 82 consecutive nucleotides consisting of the sequence from position –117 to position –36 relative to the translation initiation site (position 13545) of SEQ ID NO:1, and wherein the promoter polynucleotide preferentially promotes transcription of the genetic element in cells expressing telomerase reverse transcriptase (TERT), thereby promoting replication of the virus, and wherein replication of the virus in a cell leads to lysis of the cell; and a method for producing said recombinant virus,

does not reasonably provide enablement for:

A recombinant virus having a genome in which a promoter polynucleotide is operably linked to a genetic element essential for replication or assembly of the virus, wherein the promoter polynucleotide consists of any consecutive 82 nucleotides of SEQ ID NO:1, and wherein the promoter polynucleotide preferentially promotes transcription of the genetic element in cells expressing telomerase reverse transcriptase (TERT), thereby promoting replication of the virus, and wherein replication of the virus in a cell leads to lysis of the cell; and a method for producing said recombinant virus. The specification does not enable any person skilled in the art to which it pertains, or with

which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Applicant traversed this rejection on the grounds that the Office Action does not provide any example of a promoter that has the same expression pattern as TERT and they also argue that the amendments to the claims and newly added claims provide a promoter comprising the functional core sequence of SEQ ID NO:1.

These arguments are not found persuasive because, first, the Office does not need to provide any examples of a promoter that has the same expression pattern as TERT. The claims only require that "promote transcription...in cancer cells expressing TERT." There is no specific requirement by the claims to have the same expression pattern of TERT.

Second, the recitation in these claims are not specifically comprises the functional core elements of SEQ ID NO:1 as suggested by Applicant. Claim 27 and 47 (and its dependent claims) are drawn to a promoter polypeptide that hybridizes to a DNA. As discussed above in the New Matter rejection, any DNA sequence can hybridize to any sequence under stringent condition. Therefore, the claims still encompass any promoter. Therefore, the amendments to these claims do not obviate the previous enablement issues of record.

The amendments to claim 27 that recite, "a DNA consisting of 2482 consecutive nucleotides upstream of the transcription initiation site (position 13545) of SEQ ID NO:1" introduce new enablement issues as well. The breadth of "a DNA sequence" encompasses any nucleotide sequence that is 2482 consecutive nucleotides that are

upstream of the transcription initiation site. The specification teaches that the promoter is specifically located between –2482 and +1 of SEQ ID NO:1. However, many other possible sequences that are 2482 consecutive nucleotides that do not contain the intended promoter or any promoter are present upstream of position 13545 (ie the transcriptional initiation site). Therefore, the instant claims include the use of non-promoter sequences that would not be able to function as a promoter. Therefore an artisan would not be able to use the instant invention that has sequences that are non-promoter sequences as is encompassed by a DNA sequences of 2482 consecutive nucleotides upstream of the transcription initiation start site. Therefore the claims are not enable for such an embodiment.

Claim 33 recites, "wherein the sequence of the promoter polynucleotide is a least 90% identical to the sequence from position -2482 to –36 relative to the translation initiation site". This recitation comes close to addressing the enablement issues of record. However, the claim also recites " or a fragment thereof that promoted transcription in cells expressing TERT", which again encompasses the same elements that were deemed as lacking enablement. Therefore, the claims remains rejected as lacking enablement.

The enablement rejection of claim 38 is being withdrawn because the amendments provide a promoter comprising the functional core sequence of SEQ ID NO:1. However, the amendments and new claims have not overcome the previous enablement issues of record. Therefore the rejection is maintained for these claims or extended to the new claims.

Written Description

9. Claims 27 and 40 stand rejected and claims 28-33, 35, 37, 47, and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The instant invention was rejected for a lack adequate written description to support any promoter as claimed.

Applicant traversed this rejection on the grounds that previously disclosed above in the enablement rejection. These arguments are not found persuasive in regards to the written description for the arguments disclosed above in the enablement as well. Again, because the amendments to the claims are drawn to a promoter that hybridizes under stringent conditions, these embodiments still encompass any promoter and the specification lack adequate description to support any promoter.

The rejection of claim 38 has been withdrawn because the amendment of the claims limited the claims to a promoter adequately disclosed in the specification. Therefore the rejection of claim 38 is withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 27-34, 35-38, 40, 42-44, 47and 48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "stringent conditions" in claims 27 and 47 is a relative term which renders the claim indefinite. The term " stringent conditions " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Level of stringency is relative to an artisan and to the specific hybridization being performed because many different conditions can be considered stringent by an artisan depending on the specificity desired by the artisan.

Amended claims 33 and 38 and new claims 47-49 recite, "relative to the translation initiation site". The metes and bound of this recitation are indefinite because it is not clear how close to the translation initiation site the sequence must be.

Claims 50 and 51 depend on claim 49, which has been deemed indefinite. Therefore, dependent claims 50 and 51 are also rendered indefinite.

Claims 35, rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, has been amended and the rejection is withdrawn.

Claim 35 was deemed indefinite in its recitation of "a binding site for a transcription regulatory element". The claim was amended to recite, "transcription regulatory factor", thereby clarifying the claim. Therefore the rejection is withdrawn.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 27, 29, 31, 32, 35, 40 stand rejected under 35 U.S.C. 102(e) as being anticipated by Martuza et al **(U.S. Patent 5,728,379, IDS)** as evidenced by Kim et al **(Science, 266:2011-2015, 1994)** and Kanazawa et al **(Biochemical and Biophysical Research Communications, 225:570-576, 1996)**.

Applicant traverses this rejection on the grounds that the art does not disclose all the features previously claimed and that the amendment to the claims specify the functional core sequence of SEQ ID NO:1, the hTERT promoter.

These arguments are not found persuasive for argument discussed above. The breath of the claims is to any promoter that is operably linked to a genetic element essential for replication or assembly of a virus wherein the promoter can hybridized to the hTERT promoter of SEQ ID NO:1. As previously stated in the enablement rejection above, nearly any sequence can hybridize to a sequence under any conditions, therefore the claims are drawn to any promoter. Martuza et al teach tumor/cancer specific promoters can be operably linked to genetic elements for the life cycle of a recombinant virion which promote lysis of the tumor cell, as previously disclosed in the Non-Final Rejection , mailed 3/15/2006. The claims also require that the promoter promote transcription of the genetic element in cancer cells expressing TERT. Kim and Kanazawa teach that TERT expression is present in cancers cells, therefore inherently the cancer cell of Martuza express TERT as claimed.

Again, the amendments to the claims do now obviate the claims and therefore, they still encompass any promoter as discussed above. Therefore, the rejection is maintained.

12. Claims 27-32, 35 and 40 stand rejected under 35 U.S.C. 102(e) as being anticipated by Hallenbeck et al **(U.S. Patent 5,998,205, IDS)** as evidenced by Kim et al **(Science, 266:2011-2015, 1994)** and Kanazawa et al **(Biochemical and Biophysical Research Communications, 225:570-576, 1996)**.

Applicant traversed this rejection on the same grounds as those for the 102(e) rejection disclose in item #10).

These arguments are not found persuasive for the same reasons disclosed in item # 10). Hellenbeck teaches Hallenbeck teaches that a variety of tumor/cancer specific promoter polynucleotides (col. 6, lines 8-22) can be operably linked to a genetic element essential for the life cycle of said recombinant virion, wherein the promoter polynucleotide promotes transcription of said genetic element specifically in tumor or cancer cells, thereby promoting the lytic life cycle of the recombinant virion, thereby promoting death of the tumor or cancer cells. Kim and Kanazawa teach that TERT expression is present in cancers cells, therefore inherently the cancer cell of Hellenbeck express TERT as claimed. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 27-33, 35-37 and 40 stand rejected and claims 38, and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallenback et al **(U.S. Patent 5,998,205, IDS)** and Martuza et al **(U.S. Patent 5,728,379, IDS)** in view of Kim et al **(Science, 266:2011-2015, 1994)** and Kanazawa et al **(Biochemical and Biophysical Research Communications, 225:570-576, 1996)** and Takakura et al **(Cancer Research, 59:551-557, 1999, IDS)**.

Applicant traversed this rejection on the basis that these arts doe not provide a motivation for the use of the TERT promoter because the art does not provide a desirability to incorporate the TERT promoter, that the Hallenbeck and Martuza teach other alternative for promoters which teaches against the use of the TERT promoter, that an artisan would have not used this promoter because of the potential dangerous side effects that the promoter could have introduced and that the specification teaches unexpected results that include no demonstrated side effects, effective oncolytic function after a single infections, and that the use of the TER promoter is more effective than ONYX-015.

These arguments are not found persuasive in general because the art of record Kim and Kanazawa and Kim both teach the preferential expression of TERT in a wide variety of cancer cells and Takakura teaches that use of a TERT promoter-positive cancer cell line that is operabley linked to a reporter gene (see p. 19 of Non-Final

Rejection). Therefore, Takakura demonstrates that there is a reasonable expectation of success for the use of the TERT promoter to drive cancer specific expression of any gene of interest in a cancer cell because Takakura successful used the TERT promoter to drive cancer cell specific expression of a reporter gene. Furthermore, one would be motivated to use a TERT specific promoter because again Takakura demonstrates its successful use in cancer specific expression and because the TERT expression occurs in a wide variety of cancer cell and not normal cells as taught by Kanazawa and Kim.

Applicant's arguments are not found persuasive more specifically because first the above art does suggest that there would be a desire to incorporate the use of the TERT promoter because of its successful as a cancer specific promoter that could be applied to a wide variety of cancer cell. It is acknowledged that the arts of Hallenbeck and Martuza provide alternative promoters and do not specifically teach the use of the TERT promoter. However, this does not mean that one would not be motivated to use the TERT promoter nor does it teach away from the use of the TERT promoter as suggested by Applicant. These arts are silent on the teaching of a TERT promoter, which does not teach for it or against it. However, as disclosed above, other arts do teach for the use of a TERT promoter. In the Declaration of Dr. Harley, it suggests that the danger of side effects would steer artisans away from the use of the TERT promoter. The potential side effects of the TERT promoter teaches potential enablement issues for certain methods of use of the instant recombinant virus, however, its does not address issues of whether it would be obvious to use the TERT promoter. It suggests that the TERT promoter can be used but may also result in side effects.

Therefore, one may still be motivated to use the TERT promoter but would also know that there are potential side effects. Applicant also argues that unexpected results would not have made the instant invention obvious. However, the nature of the unexpected results are not the TERT promoter is newly known to function as a cancer specific promoter but that it is more effective than other promoters disclosed in the art. Therefore, unexpected results do not speak to the virus product itself being unexpected, but rather some method using the claimed virus being unexpected.

Therefore after consideration of Applicant's arguments and the Declaration of Calvin Harley, the arguments have not been found persuasive and therefore the rejection is maintained.

14. Claims 27-33, 35-37 and 40 stand rejected and claims 38, and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallenback et al **(U.S. Patent 5,998,205, IDS)** and Martuza et al **(U.S. Patent 5,728,379, IDS)** in view of Morin and Andrews **(U.S. Patent 6,610,839)**.

Applicant traverses this rejection on the same ground as disclosed for the above 103 in item # 12. Applicant's arguments are not found persuasive for the reasons disclosed above in # 12 as well. Therefore, the rejection is maintained.

15. No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcia S. Noble whose telephone number is (571) 272-5545. The examiner can normally be reached on M-F 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marcia S. Noble

Dale Walters
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